



Temporary Permit

Facility ID No: **3300700010**
Permit No: **TP-B-0500**
County: **Coos**
Date Issued: **September 10, 2004**

This certifies that:

Whitefield Power & Light Company, 260 Airport Road, Whitefield, NH 03598
has been granted a Temporary Permit for the

Babcock & Wilcox Wood-Fired Boiler

With a Regenerative Selective Catalytic Reduction System

which includes devices that emit air pollutants into the ambient air as set forth in equipment registration forms (ARD 1-6), filed with this Division under the date of **June 23, 2004** in accordance with RSA 125-C of the New Hampshire Laws. Request for permit renewal is due to the Division at least 90 days prior to the expiration of this permit and must be accompanied by the appropriate application forms. This Temporary Permit is valid upon issuance and expires on **March 31, 2006**.

This Permit is valid provided that each device is operated in accordance with all the legally enforceable conditions specified within this permit.

- I. **The owner or operator of the facility as specified by this permit shall be subject to the New Hampshire Rules Governing the Control of Air Pollution and the Federal Code of Regulations 40 CFR 60 Subpart Db.**
- II. **All equipment, facilities, and systems installed and used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible to minimize air pollutant emissions.**

SEE ATTACHED SHEETS FOR ADDITIONAL PERMIT CONDITIONS

The owner or operator of the devices covered by this permit shall submit a written request for a permit amendment to the Director at least 90 days prior to the implementation of any proposed change to the physical structure or operation of the devices covered by this permit which increases the amount of a specific air pollutant currently emitted by such devices or which results in the emission of any regulated air pollutant currently not emitted by such devices. The change shall not take place until a new permit application is submitted and acted upon by the Director pursuant to Env-A 600.

This permit (or a copy) should be appropriately displayed near the devices for which it is used.



Director, Air Resources Division

III. Facility Description of Operations

Whitefield Power and Light Company (Whitefield) owns and operates a 16 MW net output power generation facility located on Airport Road in Whitefield, NH. The primary source of emissions at the facility is the Babcock & Wilcox Wood-Fired Boiler. The facility has proposed and has been granted approval through the issuance of this Temporary Permit to install a Regenerative Selective Catalytic Reduction System to reduce emissions of nitrogen oxides from the wood-fired boiler. The facility also operates an emergency diesel generator, a fire pump and a cooling tower.

IV. Device Identification:

A. Emissions Unit Identification:

The emissions units identified in Table 1 are subject to and regulated by this Permit.

Table 1 – Emission Unit Identification			
Emissions Unit Number	Device	Manufacturer Model No. & Serial No.	Nameplate Rating in MMBTU/Hr & Permitted Fuel Types
EU1	Wood-Fired Boiler	Manufacturer: Babcock & Wilcox Model No.: Towerpak CCZ Serial No.: 757801	220 MMBTU/hr <ul style="list-style-type: none">• Whole tree wood chips at approximately 55% moisture;• Sawdust;• Clean processed wood fuel; and• Any combination of whole tree wood chips and clean processed wood fuel

B. Pollution Control Equipment Identification:

The devices contained in Table 2 are considered pollution control equipment for the identified emissions unit.

Table 2 – Pollution Control Equipment			
Pollution Control Equipment #	Device Type	Purpose	Emissions Unit #
PCE1	Multicyclone (Multiclone)	Primary particulate matter control	EU1
PCE2	Electrostatic Precipitator (ESP)	Secondary particulate matter control	EU1
PCE3	Regenerative Selective Catalytic Reduction System (RSCR)	Primary NOx control	EU1

V. Operational and Emissions Limitations:

The devices identified in Section IV. of this Permit shall be subject to the following operational and emissions limitations identified in Table 3.

Table 3 – Operational and Emission Limitations			
Item #	Applicable Requirement	Applicable Emission Unit	Basis
1.	<p>The maximum operating rate of EU1 shall be limited to a total of 220 MMBTU/hr gross heat input. This is equivalent to:</p> <ul style="list-style-type: none"> a. 152,000 lb/hr of steam production as averaged over any consecutive 30-day period at 900 °F and 885 PSIG assuming a boiler efficiency of 68% and boiler feedwater temperature of 443 °F; and b. 252, 000 tons per year of wood chips at 55% moisture based on a heating value of 7.65 MMBTU/ton. 	EU1	Maximum Design Rating of the Emissions Unit
2.	<ul style="list-style-type: none"> a. The Permittee is authorized to burn the following fuels in EU1: <ul style="list-style-type: none"> i. Whole tree wood chips at approximately 55% moisture (approximately 7.65 MMBTU/ton); ii. Sawdust; iii. Clean processed wood fuel¹ (approximately 7.65 to 13.5 MMBTU/ton); or iv. Any combination of 2.a.i, 2.a.ii. or 2.a.iii. b. The Permittee is authorized to burn Number 2 diesel fuel oil in PCE3. 	EU1 & PCE3	TV-OP-007, and Temporary Permit Application Dated 6/23/2004
3.	All equipment, facilities and system installed and used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and shall be operated as efficiently as possible so as to minimize air pollutant emissions and meet all applicable air pollutant emission limits.	Facility-wide	TV-OP-007
4.	PCE1 and PCE2 shall be fully operational upon facility startup and shall not be bypassed during startup, operation or shutdown of EU1.	PCE1 & PCE2	TV-OP-007
5.	PCE3 shall be operated so as to maintain a NOx emission rate from EU1 not to exceed the limit specified in Item 13 of Table 3. The ammonia flow rate shall be adjusted based on the NOx emissions rate as determined by the NOx CEM.	PCE3	Temporary Permit Application Dated 6/23/2004

¹ Clean processed wood fuel is considered to be fuel that exhibits fuel characteristics equivalent to “whole tree wood chips” and “sawdust” with respect to the ultimate and proximate analysis of the fuel.

Table 3 – Operational and Emission Limitations

Item #	Applicable Requirement	Applicable Emission Unit	Basis												
6.	Ammonia emissions from the PCE3 shall be limited to 20 ppm _{dv} @ 6% O ₂ _{dv} which is equivalent to the following:	PCE3	Temporary Permit Application Dated 6/23/2004												
	<table><tr><th>NH3 Limit ppm_{dv}</th><th>%O₂ dry basis</th><th>%O₂ wet basis</th><th>%CO₂ dry basis</th><th>% CO₂ wet basis</th><th>Vol % Moisture in Flue Gas 2004 RATA</th></tr><tr><td>20.0</td><td>6.0</td><td>4.7</td><td>14.7</td><td>11.6</td><td>21</td></tr></table>			NH3 Limit ppm _{dv}	%O ₂ dry basis	%O ₂ wet basis	%CO ₂ dry basis	% CO ₂ wet basis	Vol % Moisture in Flue Gas 2004 RATA	20.0	6.0	4.7	14.7	11.6	21
	NH3 Limit ppm _{dv}			%O ₂ dry basis	%O ₂ wet basis	%CO ₂ dry basis	% CO ₂ wet basis	Vol % Moisture in Flue Gas 2004 RATA							
20.0	6.0	4.7	14.7	11.6	21										
7.	The RSCR System shall be equipped with two diesel fuel oil burners with a combined rating of 1.8 MMBTU/hr. The burners shall be operated in conjunction with a Honeywell Burner Management System to maintain a temperature within the catalyst bed of approximately 500 °F.	PCE3	Temporary Permit Application Dated 6/23/2004												
8.	The sulfur content of diesel fuel oil shall not exceed 0.4 percent sulfur by weight.	PCE3	Env-A 1604.01(a)												
9.	The Permittee shall control CO emissions by varying the total quantity of input combustion air and/or local distribution of that air into EU1. EU1 shall be equipped with a fuel distribution, overfire air and undergrate air control system for optimum NO _x and CO emission control.	EU1	Env-A 305												
10.	The CO emission rate for EU1 shall be limited to 225 lbs/hr averaged over each calendar day in accordance with the National Ambient Air Quality Standards (NAAQS), as calculated on the CEM system or using the calculations shown in Table 4, Item 19.	EU1	RSA 125-C:6, RSA 125-C:11 and Env-A 606.04												
11.	<p>To avoid the federal PSD Program, emissions from EU1 shall not exceed the following:</p> <p>a. 57.0 lb/hr of NO_x averaged over any consecutive 365-day period ²; and</p> <p>b. 57.0 lb/hr of CO averaged over any consecutive 365-day period.</p> <p>Compliance with these emissions limits shall be demonstrated using the NO_x and CO CEM data.</p>	EU1	40 CFR 52.21(b)(1)(i)(b)												
12.	To avoid the federal PSD Program, the Permittee shall not exceed emissions of NO _x and CO of 250 tons per year for each pollutant.	Facility-wide	40 CFR 52.21(b)(1)(i)(b)												
13.	The NO _x emissions rate from EU1 shall not exceed 0.075 lb/MMBTU based on a quarterly average.	EU1	Temporary Permit Application Dated 6/23/2004												

2 This limit is less stringent than the NO_x emission rate limitation of 0.075 lb/MMBTU (Item 13 of Table 3) based on the installation and operation of the RSCR System.

Table 3 – Operational and Emission Limitations

Item #	Applicable Requirement	Applicable Emission Unit	Basis
14.	The Permittee shall not exceed NOx emissions rates of 0.33 lb/MMBTU based on a 24-hour calendar day average for boilers firing wood or a combination of wood and oil and equipped with a traveling, shaker or vibrating grate. ³	EU1	Env-A 1211.04(d) & Env-A 1211.05(d)(5)
15.	No owner or operator that combusts wood, or wood with fuel oils shall cause or allow discharge of particulate matter in excess of 0.10 lb/MMBTU heat input. ⁴ The owner or operator of an affected facility subject to the opacity standard shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.	EU1	40 CFR 60.43b(c)(1), & 40 CFR 60.48b(a) Subpart Db
16.	No owner or operator shall cause or allow average opacity from fuel burning devices installed after May 13, 1970 in excess of 20 percent for any continuous 6-minute period.	EU1	Env-A 2003.02 (formerly Env-A 1202.02) & Subpart Db 40 CFR 60.43b(f)
17.	The following items a.1. or a.2., and b. are exempt from the opacity standard specified in Item 16 of Table 3 above: a. One 6-minute continuous period per hour for opacity: 1. Greater than 20 percent during periods of startup, shutdown and malfunction, or 2. Within 20 to 27 percent during normal operation, soot blowing, grate cleaning, and cleaning of fires. b. Any 6-minute continuous exceedance of the opacity standard where Whitefield demonstrates to DES that such exceedances: 1. Were the result of the adherence to good boiler operating practices which, in the long term, result in the most efficient or safe operation of the boiler; 2. Occurred during periods of cold startup of a boiler over a continuous period of time resulting in efficient heat-up and stabilization of its operation and the expeditious achievement of normal operation of the unit; 3. Occurred during periods of continuous soot blowing of the entire boiler tube section over regular time intervals as determined by the operator and in conformance with good boiler operating practice; and 4. Were the result of the occurrence of an unplanned incident in which the opacity exceedances was beyond the control of the operator and in response to such incident, the operator took appropriate steps in conformance with good boiler operating practice to eliminate the excess opacity as quickly as possible.	EU1	Env-A 2003.04(c)(d) (e)(2)& (f) & 40 CFR 60.43b(g)

³ This limit is less stringent than the NOx emission rate limitation of 0.075 lb/MMBTU (Item 13 of Table 3).

⁴ This limit is more stringent than the requirement specified in Env-A 2003.08.

Table 3 – Operational and Emission Limitations

Item #	Applicable Requirement	Applicable Emission Unit	Basis
18.	In accordance with Env-A 1406.01, the owner of any device or process, that emits a regulated toxic air pollutant, shall determine compliance with the ambient air limits (AALs) by using one of the methods provided in Env-A 1406.02, Env-A 1406.03, Env-A 1406.04, Env-A 1406.05 or Env-A 1406.06.	Facility-wide	Env-A 1406.01
19.	In accordance with Env-A 1404.01(d), documentation for the demonstration of compliance shall be retained at the facility, and shall be made available to the DES for inspection.	Facility-wide	Env-A 1404.01(d)
20.	In accordance with RSA 125-I:5 IV, if DES revises the list of regulated toxic air pollutants (RTAPs) or their respective ambient air limits or classifications under RSA 125-I:4, II and III, and as a results of such revision the Permittee is required to obtain or modify the Permit under the provisions of RSA 125-I or RSA 125-C, the Permittee shall have 90 days following publication of notice of such final revision in the New Hampshire Rulemaking Register to file a complete application for such permit or permit modification. DES shall include as conditions in any permit issued as a result of a revision to the list of RTAPs a compliance plan and a schedule for achieving compliance based on public health, economic and technical consideration, not to exceed 3 years.	Facility-wide	RSA 125-I:5 IV
21.	Any person engaged in any activity, except those listed in Env-A 1002.02(b), above that emits fugitive dust within the state shall take precautions throughout the duration of the activity in order to prevent, abate, and control the emission of fugitive dust including but not limited to wetting, covering, shielding, or vacuuming.	Facility-wide	Env-A 1002.04 formerly Env-A 1002.03

VI. Monitoring and Testing Requirements:

The Permittee is subject to the monitoring and testing requirements as contained in Table 4 below:

Table 4 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Basis
1.	Pressure Drop Across the PCE1	Conduct monitoring of pressure differential across the Multiclone unit at least once per shift. An acceptable pressure differential shall be in accordance with standard operating practices and manufacturer's recommended operating parameters and shall be maintained between 2" and 5" of water column. Pressure differential readings shall be recorded on standard operating logs and kept on file at the facility for review by the DES upon request. The standard operating logs shall include the acceptable operating parameters for quick reference by facility personnel.	At least once per shift	EU1	RSA 125-C:6, XI, Env-A 801.02(a)

Table 4 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Basis
2.	PCE1 Monitoring	During downtime maintenance periods, facility personnel shall inspect inlet and outlet vanes and boots for any build up of caked dust. All caked dust shall be removed during each downtime maintenance period.	Each down-time maintenance period	PCE1	RSA 125-C:6, XI, Env-A 801.02(a)
3.	Particulate Matter	<p>The ESP is digitally controlled through an energy management system to maintain opacity within 3-7%. The computer automatically controls the primary voltage to the ESP collector fields to maintain the opacity readings within the above range.</p> <p>a. Operators will verify that the system continuously responds properly to opacity changes and the hourly average will be maintained between 3%-7%.</p> <p>b. The computer shall sound alarm to alert the operator of a failure in either field.</p> <p>c. The ESP shall be inspected at least once per shift. The casing, inspection ports, and ash conveyor troughs shall be inspected for leaks, abnormal noise, hot spots and fires. Local level alarm indicators shall be monitored for normal values. The level probes shall be inspected monthly and remote alarms verified for correct operation. Operating log entries will be made documenting the preventive maintenance and testing.</p>	Continuous	PCE2	RSA 125-C:6, XI, Env-A 801.02(a)
4.	Ammonia Flow to PCE3	The ammonia flow to PCE3 shall be continuously monitored using an approved ammonia flow meter. Ammonia usage shall be calculated and recorded daily.	Continuous & daily calculations	PCE3	RSA 125-C:6, XI, Env-A 801.02(a)
5.	RSCR Catalyst Bed Temperature	The temperature in the RSCR catalyst bed shall be continuously monitored using an approved temperature monitor. Whitefield shall calculate and record the average daily temperature within the RSCR catalyst bed.	Continuous & average daily calculations	PCE3	RSA 125-C:6, XI, Env-A 801.02(a)
6.	Ammonia Flow/NOx Emission Rate Comparison	Whitefield shall calculate and record the average daily ammonia flow rate in lb/hr based on the ammonia flow meter and compare that to the average daily NOx emission rate in lb/hr based on the NOx CEM data.	Daily	EU1 & PCE3	RSA 125-C:6, XI, Env-A 801.02(a)
7.	Ammonia Slip	Whitefield shall conduct initial and annual ammonia stack testing requirements after the installation of the RSCR System in accordance with Section VIII. of this Permit.	As required in Section VIII of this Permit	EU1, PCE1, PCE2 & PCE3	RSA 125-C:6, XI, Env-A 801.02(a)

Table 4 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Basis
8.	Stack Testing Requirements	<p>At the request of the DES, Whitefield shall conduct USEPA method compliance stack test for emissions in accordance with the following schedule:</p> <ol style="list-style-type: none"> At least 30 days prior to the commencement of testing , Whitefield shall submit to the Division a pre-test report presenting the following information: <ol style="list-style-type: none"> Calibration methods and sample data sheets; Description of the test methods to be used; Pre-test preparation procedures; Sample collection and analysis methods; Process data to be collected; and Complete test program description. 	Upon request by DES	EU1, PCE1, PCE2, & PCE3	RSA 125-C:6,XI, Env-A 806.01(a)
9.	Opacity	The COMS shall meet the requirements of 40 CFR 60, Appendix B, Performance Specification 1 and Env-A 808. Determination of compliance with opacity emission limits established in Table 3 of this permit shall be made by the facility COMS or visible emission readings taken once per shift following the procedures specified in 40 CFR 60, Appendix A, Method 9. Calculations shall be performed as specified in Table 4 Item 19.	Continuous	Opacity COMS	40 CFR 60, Appendix B, Performance Specification 1 & Env-A 807 & 808
10.	NOx Emissions	The NOx CEM system shall meet the requirements of 40 CFR 60, Appendix B, Performance Specification 2 and Env-A 808. Determination of compliance with NOx emission limits established in Table 3 of this permit shall be made by the facility NOx CEM. The NOx emission rate shall be calculated daily as the average of the calendar day averages as calculated on the NOx CEM. Calculations shall be performed as specified in Table 4, Item 19.	Continuous	NOx CEM	40 CFR 60, Appendix B, Performance Specification 2 & Env-A 808
11.	CO Emissions	The CO CEM system shall meet the requirements of 40 CFR 60, Appendix B, Performance Specification 4 and Env-A 808. Determination of compliance with CO emission limits established in Table 3 of this permit shall be made by the facility CO CEM. The CO emission rate shall be calculated daily as the average of the calendar day averages as calculated on the CO CEM. Calculations shall be performed as specified in Table 4, Item 19.	Continuous	CO CEM	40 CFR 60, Appendix B, Performance Specification 4 & Env-A 808

Table 4 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Basis
12.	Carbon Dioxide (CO ₂)	The CO ₂ CEM shall meet the requirements of 40 CFR 60, Appendix B, Performance Specification 3 and Env-A 808.	Continuous	CO ₂ CEM	40 CFR 60, Appendix B, Performance Specification 3 & Env-A 808
13.	Volumetric Flow	<p>The continuous emission monitoring system (CEM) shall meet all of the requirements of 40 CFR 60, Appendix B, Performance Specification 6. The stack flow monitor shall have an automatic blow-back purge system installed and activated, at all times, during boiler operation.</p> <p>The stack volumetric flow measuring device combined with the NO_x and CO concentration obtained from CEM, shall be used to calculate mass emission rates for comparison with the emission standard specified in Table 3.</p>	Continuous	Volumetric Flow CEM	40 CFR 60, Appendix B, Performance Specification 6 & Env-A 808.03 (d)
14.	QA/QC Plan Requirements	<p>The Permittee required to operate or maintain an opacity or gaseous CEM system shall:</p> <ol style="list-style-type: none"> Maintain a quality assurance/quality control (QA/QC) plan, which shall contain written procedures for implementation of its QA/QC program for each CEM system; Review the QA/QC plan and all data generated by its implementation at least once each year; Revise or update the QA/QC plan, as necessary, based on the results of the annual review, by documenting any changes made to the CEM or changes to any information provided in the monitoring plan; Make the revised QA/QC plan available for on-site review by the division at any time; Within 30 days of completion of the annual QA/QC plan review, certify in writing that the Permittee will continue to implement the source's existing QA/QC plan or submit in writing any changes to the plan and the reasons for change. 	Annually	EU1	Env-A 808.06

Table 4 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Basis
15.	General Audit Requirements	a. Required quarterly audits shall be done anytime during each calendar quarter, but successive quarterly audits shall occur no more than 4 months apart; and b. The Permittee shall notify the division at least 30 days prior to the performance of a RATA.	Quarterly	EU1	Env-A 808.07
16.	Gaseous CEM Audit Requirements	Audit requirements for gaseous CEM systems shall be performed in accordance with procedures described in 40 CFR 60, Appendix F and Env-A 808.08	Quarterly	EU1	Env-A 808.08
17.	Opacity CEM Audit Requirements	Audit requirements for opacity CEM systems shall be performed in accordance with procedures described in 40 CFR 60, Appendix B, Specification 1 and Env-A 808.09	Quarterly	EU1	Env-A 808.09
18.	Data Availability Requirements	The Permittee shall operate the CEM at all times during operation of the source in accordance with Env-A 808.10, except for periods of CEM breakdown, repairs, calibration checks, preventive maintenance, and zero/span adjustments.	As specified	EU1	Env-A 808.10

Table 4 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Basis
19.	Calculations of CEM Averages	<p><u>Calendar day average</u> shall be calculated as follows:</p> <ol style="list-style-type: none"> Calendar day average=(Sum of all valid hour lb/hr averages for the calendar day)/(24 hours – hours of CEM system downtime for the day); Calendar day averages shall only be valid for days with 18 or more valid hours of CEM data; A valid hour of CEM data shall be defined as a minimum of 42 minutes collection of CEM readings taken in a calendar hour; and Hours of CEM system downtime shall be defined as the number of calendar hours when the CEM system has not collected data or is out-of-control for greater than 18 minutes for any reason (i.e. audits, CEM system calibration, CEM system failures, etc.) <p><u>Consecutive 365-day average</u> shall be calculated as follows:</p> <ol style="list-style-type: none"> Consecutive 365-day Average=(Sum of all valid calendar day averages for the 365-day period)/(365 days – days of CEM system downtime); Days of CEM system downtime shall be defined as the number of calendar days when the CEM system has collected less than 18 valid hours of CEM data; Hours or days when the CEM system has been intentionally shutdown when the facility is not operating shall not be counted as CEM system downtime. 	N/A	EU1	40 CFR 60, Appendix B, & Env-A 808
20.	Continuous Steam Flow	The owner or operator shall install, maintain and operate a continuous steam flow rate monitoring/recording system which shall meet all applicable ASME specifications. Calibration of the steam flow transducer shall occur at least once annually. If adequate straight length of piping is not available, then in lieu of a measuring system that meets ASME specifications, the owner or operator may use a steam flow rate monitoring system that can be calibrated by instruments installed, maintained and calibrated per ASME specifications or by other methods approved by the DES.	Annually	EU1	Env-A 808.02

Table 4 – Monitoring/Testing Requirements					
Item #	Parameter	Method of Compliance	Frequency of Method	Device	Basis
21.	Sulfur Content of Liquid Fuels	The owner or operator shall conduct testing in accordance with appropriate ASTM test methods or retain delivery tickets that certify the weight percent of sulfur for each delivery of fuel oil to determine compliance with the sulfur content limitation provisions specified in this permit for liquid fuels.	For each delivery of fuel oil to the facility	PCE3	Env-A 806.02 & 806.05

VI. Recordkeeping Requirements:

The Permittee shall be subject to the recordkeeping requirements identified in Table 5 below:

Table 5 – Applicable Recordkeeping Requirements				
Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Basis
1.	Any owner or operator of a source or device subject to this chapter shall keep the required records on file for a minimum of 5 years.	Retain for a minimum of 5 years	Facility-wide	Env-A 902.01(a)
2.	Facilities subject to the requirements of Env-A 1400, shall maintain records in accordance with the applicable methods used to demonstrate compliance pursuant to Env-A 1406.	Maintain on a continuous basis	Facility-wide	Env-A 902.01(c)
3.	<p>The Permittee shall maintain records of monitoring requirements as specified in Table 4 of this Permit including:</p> <ul style="list-style-type: none"> a. Summary of maintenance and repair records for pollution control equipment listed in Table 2. b. Summary of maintenance, and repair records of the CEM, and COM systems; c. Summary of maintenance, and repair records of the RSCR System monitoring devices; d. Summary of maintenance, calibration, and repair records associated with steam flow measuring device; e. Stack test results for CO, NOx, Ammonia, and PM; and f. Summary of testing and/or delivery ticket certifications for sulfur content limitation provisions. 	Maintain on a continuous basis	Facility-wide	Env-A 906

Table 5 – Applicable Recordkeeping Requirements

Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Basis
4.	<p>The owner or operator of a combustion device shall maintain monthly records or records of fuel characteristics and utilization, including primary, secondary, tertiary and auxiliary fuel in accordance with the following:</p> <p>For wood and bark including saw/sander dust:</p> <ul style="list-style-type: none"> a. Consumption; and b. Fuel type <p>For applicable liquid fuels, pursuant to Env-A 1603.01</p> <ul style="list-style-type: none"> a. Consumption; b. Fuel type; and c. Sulfur content as percent sulfur by weight of fuel 	Monthly	EU1 & PCE3	Env-A 903.03
5.	<p>For the RSCR System, the owner or operator shall keep records of the following information in accordance with the required timeframes:</p> <ul style="list-style-type: none"> a. Daily ammonia usage in gallons; b. Average daily ammonia flow in lb/hr; c. Average daily ammonia flow (lb/hr) to average daily NOx flow (lb/hr) ratio; and d. Average daily temperature of the RSCR catalyst bed. 	Daily	EU1 & PCE3	Env-A 906
6.	<p>For each CEM system at the facility, the owner or operator shall keep the records of emission data recorded by the CEM system, including:</p> <ul style="list-style-type: none"> a. Calendar daily averages of NOx and CO lb/hr and part per million (ppm) dry whether or not an excess emissions has occurred; b. Calendar daily averages of percentage of CO₂ on a wet basis. c. Calendar daily averages of percentage of opacity; d. Calendar daily averages of steam generation rate; e. Calendar daily averages of stack flow (dscfm); and f. CEM system availability data. 	Maintain on a continuous basis	EU1	Env-A 903.04(a), Env-A 808

Table 5 – Applicable Recordkeeping Requirements

Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Basis
7.	<p>For each CEM system at the facility, the owner or operator shall keep the records of excess emission data recorded by the CEM system, including:</p> <ul style="list-style-type: none"> a. Excess emission data recorded by the CEM system, including: <ul style="list-style-type: none"> 1. The date and time of the beginning and ending of each period of excess emission; 2. The magnitude of each excess emission; 3. The specific cause of the excess emission; and 4. The corrective action taken. b. If no excess emissions have occurred, a statement to that effect; c. For gaseous measuring CEM systems, the daily averages of the measurements made and emission rates calculated; d. A statement as to whether the CEM system was inoperative, repaired, or adjusted during the reporting period; e. If the CEM system was inoperative, repaired, or adjusted during the reporting period, the following information: <ul style="list-style-type: none"> 1. The date and time of the beginning and ending of each period when the CEM was inoperative; 2. The reason why the CEM was inoperative; 3. The corrective action taken; and 4. The percent data availability calculated in accordance with Env-A 808.10 for each flow, diluent, or pollutant analyzer in the CEM system. f. For all “out of control periods” the following information: <ul style="list-style-type: none"> 1. The times beginning and ending the out of control period; 2. The reason for the out of control period; and 3. The corrective action taken. g. The date and time beginning and ending each period when the source of emissions which the CEM system is monitoring was not operating. h. The span value, of each analyzer in the CEM system and units of measurement for each instrument; and i. When calibration gas is used, the following information: <ul style="list-style-type: none"> 1. The calibration gas concentration; 	Maintain on a continuous basis	EU1	Env-A 903.04(a), Env-A 808.13

Table 5 – Applicable Recordkeeping Requirements

Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Basis
	2. If a gas bottle was changed during the quarter: <ul style="list-style-type: none"> a. The date of the calibration gas bottle change; b. The gas bottle concentration before the change; c. The gas bottle concentration after the change; and 3. The expiration date for all calibration gas bottles used.			
8.	For fuel burning devices, including boilers, and internal combustion engines, the following information shall be recorded and maintained: <ul style="list-style-type: none"> a. Facility information, including: <ul style="list-style-type: none"> 1. Source name; 2. Source identification; 3. Physical address; 4. Mailing address; and 5. A copy of the certificate of accuracy required to be maintained pursuant to Env-A 901.08. b. Identification of each fuel burning device; c. Operating schedule information for each fuel burning device identified in b, above, including: <ul style="list-style-type: none"> 1. Days per calendar week during the normal operating schedule; 2. Hours per day during the normal operating schedule and for a typical ozone season day, if different from the normal operating schedule; and 3. Hours per year during the normal operating schedule; d. Type, and amount of fuel burned, for each fuel burning device, during normal operating conditions and for a typical ozone season day, if different from normal operating conditions, on an hourly basis in million Btu's per hour and; e. The following NO_x emission data, including records of total annual emissions, in tons per year, facility wide 	On a continuous basis	Facility Wide	Env-A 901.08 (SIP Approved Rule – Old Env-A 900)

Table 5 – Applicable Recordkeeping Requirements				
Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Basis
	emissions in tons per month, and typical ozone season day emissions, in pounds per day; 1. Theoretical potential emissions for the calculation year for each fuel burning device; 2. Actual NO _x emissions for each fuel-burning device; 3. The actual facility wide NO _x emissions per month and on a rolling 12-month basis; and 4. The actual NO _x emissions per month and on a rolling 12-month basis.			
9.	The owner or operator of any stationary source or device with add-on NO _x air pollution control equipment shall record and maintain the information in accordance with Env-A 905.03	On a continuous basis	EU1	Env-A 905.03

VII. Reporting Requirements:

The Permittee shall be subject to the reporting requirements identified in Table 6 below:

Table 6 – Applicable Reporting Requirements				
Item #	Reporting Requirements	Frequency of Reporting	Applicable Emission Unit	Basis
1.	Annual actual emissions of the stationary source, area source or device and the methods used in calculating such emissions in accordance with Env-A 704.02	Annually – Reported by April 15 th	Facility-wide	Env-A 907.01(b)(1)
2.	For combustion devices, all information in accordance with Env-A 903.03	Annual – Reported by April 15 th	Facility-wide	Env-A 907.01(b)(3)
3.	Annual reporting and payment of emission based fees, shall be conducted in accordance with Section IX of this Permit.	Annually – Reporting by April 15 th and payment by October 15 th	Facility-wide	Env-A 907.01
4.	Annual report of the actual emissions speciated by individual New Hampshire RTAP including a breakdown of VOC emissions by compound shall be submitted.	Annually – Reported by April 15 th	Facility Wide	Env-A 907.015

5 The “New” Env-A 900 effective November 26, 1998, has not been adopted as part of the State Implementation Plan (SIP) and is considered State-only enforceable until such time as the SIP is amended and approved by EPA.

Table 6 – Applicable Reporting Requirements

Item #	Reporting Requirements	Frequency of Reporting	Applicable Emission Unit	Basis
5.	In accordance with the TV-OP-007, the Permittee shall report to the DES all instances of deviations from Permit requirements, by telephone or fax, within 24 hours of such deviation. This report shall include the deviation itself, including those attributable to upset conditions, the probable cause of such deviations, and any corrective actions or preventative measures taken. Said Permit deviation shall also be submitted in writing to the DES within fifteen (15) days of documentation of the deviation by facility personnel. Deviations are instances where any Permit condition is violated and has not already been reported as a malfunction or an emergency pursuant to facility's Title V Operating Permit TV-OP-007.	Prompt reporting (within 24-hours of discovery of an occurrence)	Facility-wide	TV-OP-007
6.	Within 30 days of the end of each calendar quarter, an owner or operator of a source with a gaseous or opacity CEM system shall submit an emission report to the division in accordance with Env-A 808.12 and/or 808.13.	Quarterly (no later than 30 days following the end of each quarterly reporting period)	EU1	Env-A 808.11, 808.12 & 808.13
7.	For the RSCR System, the Permittee shall report the following information quarterly with the CEM Excess Emissions Report: a. Daily ammonia usage in gallons; b. Average daily ammonia flow in lb/hr; c. Average daily ammonia flow (lb/hr) to average daily NO _x flow (lb/hr) ratio; and d. Average daily temperature of the RSCR catalyst bed.	Quarterly	EU1 & PCE3	Env-A 910
8.	For fuel burning devices, including boilers, and engines, the Permittee shall submit to the Director, annually (no later than April 15 th of the following year), reports of the data specified in Table 5, including total annual quantities of all NO _x emissions as collected from the CEM data.	Annually (no later than April 15 th of the following year)	Facility-wide	Env-A 901.09 (old rule) and Env-A 909 (new rule)

VIII. Ammonia Performance Testing and Compliance Testing/Monitoring Requirements:

Within 60 days of achieving the maximum production rate of EU1 after the installation of the RSCR System (PCE3) and annually thereafter, Whitefield shall conduct U.S. EPA Method stack tests at maximum operating rate conditions, and/or at the request of the Division, at any other operating rate at which maximum emissions might occur. Testing shall be performed on the exhaust stack from EU1 and PCE3 as follows:

- A. Ammonia concentration shall be measured following EPA CTM 0027 or DES approved alternative;
- B. The testing shall follow all requirements specified in Env-A 802, Compliance Stack Testing for Stationary Sources, which includes but is not limited to the following:
 - 1. Submission of a Pre-test Protocol as specified in Env-A 802.04
 - 2. Holding a pretest meeting between DES, Whitefield, and the contractor stack testing company at the facility as specified in Env-A 802.05.
 - 3. Submission of a stack testing report no later than 60 days following the successful completion of the stack test as specified in Env-A 802.11.
- C. Whitefield may use the facility's CEM data to correct the ammonia emissions to the units of the standard (20 ppmdv @ 6%dv O₂).

IX. Emission-Based Fee Requirements:

- A. The facility shall pay an emission-based fee annually as calculated each calendar year pursuant to Env-A 705.01 for all devices emitting a regulated air pollutant
- B. The facility shall determine the total actual annual emissions from all devices emitting a regulated air pollutant for each calendar year in accordance with the methods specified in Env-A 616.
- C. The facility shall calculate the annual emission-based fee for each calendar year in accordance with the procedures specified in Env-A 705.03 and the following equation:

$$\text{FEE} = \text{E} * \text{DPT} * \text{CPI}_{\text{m}} * \text{ISF}$$

Where:

FEE = The annual emission-based fee for each calendar year as specified in Env-A 705.
E = The emission-based multiplier is based on the calculation of total annual emissions as specified in Env-A 705.02 and Env-A 705.03(a).
DPT = The dollar per ton fee the Division has specified in Env-A 705.03(b).
CPI_m = The Consumer Price Index Multiplier as calculated in Env-A 705.03(c).
ISF = The Inventory Stabilization Factor as specified in Env-A 705.03(d).

- D. The facility shall contact the Division each calendar year for the value of the Inventory Stabilization Factor and the Consumer Price Index Multiplier.

- E. The facility shall submit, to the Division, payment of the emission-based fee and a summary of the calculations referenced in Conditions XI.B. and XI.C. of this permit for each calendar year by:
- i. July 15, 2005 for emissions during a calendar year 2004; and
 - ii. April 15th each subsequent year for emissions during the previous calendar year. For example, the emission-based fee for calendar year 2005 shall be submitted on or before April 15, 2006. The emission-based fee and summary of the calculations shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
6 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN: Emissions Inventory

- G. The Division shall notify the facility of any under payments or over payments of the annual emission-based fee in accordance with Env-A 705.05.